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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/438,491 11/12/99 YOSHIHARA

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EXAMINER
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005514 MM91/0323  
FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK NY 10112

SCHWARTZ, J ART UNIT	PAPER NUMBER
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2873  
DATE MAILED:

03/23/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

**Office Action Summary**

Application No.

09/438,491

Applicant(s)

YOSHIHARA, TOSHIYUKI

Examiner

Jordan M. Schwartz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Drawings***

This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

### ***Claim Rejections - 35 USC § 112***

Claims 1, 3-4, 11 and 13-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In reference to claims 1 and 4 that part of the claims stating "being rotatable about and tiltable..." renders these claims vague and indefinite because it is not clear if applicant is claiming the optical element as being rotatable about and tiltable or the claimed surface as being rotatable about and tiltable and the lack of clarity renders the claims vague and indefinite. The assumed meaning for purposes of examination is the optical element and it is suggested that applicant claim "said optical element being rotatable about and tiltable..." to provide the necessary clarity.

In reference to claims 3 and 13, that part of the claim stating "said optical elements are selectively used" renders the claims vague and indefinite. It is not known as to what type of uses are considered "selective" and therefore the intended meaning

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of the limitation is not clear. Furthermore, that part of the claim stating "each being as aforesaid" renders the claim vague and indefinite and it is suggested that applicant set forth with greater particularity the intended limitation.

In reference to claims 11 and 14 that part of the claims stating "being inclined with respect ..." renders these claims vague and indefinite because it is not clear if applicant is claiming the optical element as being inclined or the claimed surface as being inclined and the lack of clarity renders the claims vague and indefinite. The assumed meaning for purposes of examination is the optical element and it is suggested that applicant claim "said optical element being inclined with respect..." to provide the necessary clarity.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7-8, 11-13 and 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Okuyama et al.

Okuyama et al reads on these claims by disclosing the limitations therein including the following: an aberration changing optical system (Figure 1, the entire system and column 4, line 1) comprising an optical element having a cylindrical surface (column 3, line 51) being rotatable (column 6, line 64) and tiltable to an optical axis (column 3, line 58); an optical element having a refracting power in only one direction

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(column 6, line 60); and the aberration changing optical system within a projection optical system (abstract). It is believed that the surface refractive power would inherently not be greater than as set forth in claim 7, this being reasonably based upon the similarity in structure to that of the claimed invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Application no. 0 660 169 (hereinafter referred to as the "European'169") in view of Shimizu et al.

In reference to these claims, European'169 discloses an aberration changing optical system (column 2, lines 57 to column 3, line 18); characterized by an optical element having at least a cylindrical surface (column 8, line 46 to column 9, line 14); or an optical element having different powers in two orthogonal directions (column 17, line 18 to column 18, line 19); the optical element being rotated about the optical axis (column 8, line 46 to column 9, line 14 and column 11, lines 10-26); a plurality of such lenses (Figure 14 embodiments); and the optical elements used within a projection lens system (column 1, line 5). It is believed that the surface refractive power would inherently not be greater than as set forth in claim 7, this being reasonably based upon the similarity in structure to that of the claimed invention.

European'169 discloses as is set forth above, and, as stated above discloses the optical elements being rotated around the optical axis but does not disclose the optical element(s) tilted with respect to the optical axis. Shimizu et al teaches that in an aberration changing optical system comprising aberration changing optical elements (abstract) wherein the optical elements are rotated around the optical axis to provide astigmatism and aberration compensation (column 2, lines 15-60), that the optical elements can further be tilted with respect to the optical axis and tilted in opposite directions to each other for the purpose of further correcting for coma aberrations (Figure 6, column 2, lines 15-60). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the aberration correcting optical element(s) of European'169 as tilted with respect to the optical axis and in opposite directions to each other since Shimizu et al teaches that in an aberration changing optical system comprising aberration changing optical elements wherein the optical elements are rotated around the optical axis to provide astigmatism and aberration compensation, that the optical elements can further be tilted with respect to the optical axis and tilted in opposite directions to each other for the purpose of further correcting for coma aberrations. Examiner takes Judicial Notice of the fact that the use of quartz or fluorite are well known compositions in the art of projection lens systems. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the claimed optical element composed of either quartz or fluorite since such compositions are well known in the art of projection lens systems.

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Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okuyama et al.

In reference to these claims, Okuyama et al discloses as is set forth above but does not disclose the claimed optical element being composed of either quartz or fluorite. However, Examiner takes Judicial Notice of the fact that the use of quartz or fluorite are well known compositions in the art of projection lens systems. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the claimed optical element composed of either quartz or fluorite since such compositions are well known in the art of projection lens systems.

***Prior Art Citations***

Kato is being cited herein to show an optical element that reads on at least claim 11 (column 7, line 15), however, such a rejection would have been repetitive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M. Schwartz whose telephone number is (703) 308-1286. The examiner can normally be reached on Monday to Friday (8:00-5:30), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached at (703) 308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read "J. M. Schwartz", written in a cursive style.

Jordan M. Schwartz  
Patent Examiner  
Art Unit 2873  
March 21, 2001